

Gender pay gaps

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Key findings

Men working full-time continue to have higher average (mean) hourly, weekly and annual earnings than women. Across the United Kingdom, the mean *full-time gender pay gap* (the difference in percentage terms between the average earnings of women and men working full-time) in 2010 was 15.5 per cent for hourly earnings excluding overtime and 21.5 per cent for gross weekly earnings. The gap was wider in weekly than hourly earnings, since men tend to work longer weekly hours than women and are also more likely to receive additional payments, such as overtime.

The full-time gender pay gap is wider for mean than for median hourly (10.2 per cent) and weekly earnings (18.4 per cent). This reflects the impact on the gap of the very high earnings of some male employees; men continue to dominate the highest paid occupations, while women predominate in the lowest paid.

The full-time gender pay gap has narrowed in recent years and was lower in 2010 than in any previous year. The difference in the mean hourly earnings of men who work full-time and women who work part-time (the *part-time women's pay gap*) was also narrower in 2010 than in any previous year at 34.5 per cent. However, looking at the whole 40-year period since the enactment of the Equal Pay Act in 1970, the fall in the full-time gender pay gap has been much greater at around 20 percentage points than that for the part-time women's pay gap at around 14 percentage points.

Full-time gender pay gaps are much wider in some occupations than in others. Among broad occupational groups, the gap in both mean and median hourly earnings was widest for managers and senior officials and for skilled trades, at 24 per cent for mean earnings and between 20 and 26 per cent for median earnings. Within each broad occupational group, the size of the full-time gender pay gap often varies considerably between individual occupations. Among major industrial groupings, the full-time gender pay gap was widest for financial and insurance activities at 38.6 per cent for both mean and median earnings. It was narrowest in transportation and storage (mean hourly earnings were slightly higher for men than for women and vice versa for median earnings).

The full-time mean gender pay gap in Great Britain was widest in England and narrowest in Wales and wider in England than in Scotland in every year between 1998 and 2010. Within England, the widest gaps are to be found in London and the South East. The full-time gender pay gap has been narrower in Northern Ireland than in the other three nations of the UK since 2002.

Full-time gender pay gaps widen considerably for those aged 40-49 and remain wide thereafter. Conversely, the gap has largely disappeared for those in their twenties.

Introduction

This Equality and Human Rights Commission (the Commission) briefing paper seeks to present within a single, short, document the best available, and publicly accessible, recent statistical data in the United Kingdom (UK) relating to gender pay gaps. It does so to provide the background context for equalities work in this area both by the Commission and by other individuals and organisations.

There has been a huge body of literature on the gender pay gap in the UK/Great Britain (GB) since the 1970s. Much of this work has been carried out by, or on behalf of, the Commission and one of its predecessor bodies, the Equal Opportunities Commission. These sources - and others listed at the end of this document - provide a much more detailed analysis of the causes and consequences of the gender pay gap (and, to a lesser extent, pay gaps across other equality strands) than is attempted here. The reader is encouraged to consult some of these sources to gain a fuller understanding of a complex issue which is expected to remain on the policy agenda for many years to come. It should also be noted that pay data in this briefing are drawn almost entirely from the Annual Survey of Hours and Earnings (ASHE), which is carried out by the Office for National Statistics (ONS). The briefing does not therefore seek to analyse two alternative sources of pay data, the Labour Force Survey (LFS) and the British Household Panel Survey (BHPS) (now renamed Understanding Society). In view of this, the briefing does not include information on gender pay gaps by ethnicity, religion or disability, or by such characteristics as presence of dependent children or educational qualifications, as it is not possible to do this using the ASHE alone. It has also not sought to assess what factors have the most impact on the gender pay gap and in fact cannot do this using ASHE.¹

The paper looks at two gender pay gaps in particular:

- The *full-time gender pay gap* is calculated by dividing the average (mean) hourly earnings of female full-time employees by the average (mean) hourly earnings of male full-time employees, showing this as a percentage and subtracting the figure from 100 per cent. Thus a 0 per cent figure would indicate that for a particular category, there is no gender pay gap. Where women have higher average (mean) hourly earnings than men, the data are shown as a minus figure in the tables. The same approach can be followed but using the median rather than the mean (see p. 6 for a discussion of these alternatives).
- The *part-time women's pay gap* is calculated by dividing the average (mean) hourly earnings of female part-time employees by the average (mean) hourly

earnings of male full-time employees, showing this as a percentage and again subtracting the figure from 100 per cent. The same approach can be followed but using the median rather than the mean.

The *part-time men's pay gap* is also shown in some tables. This is calculated by dividing the average (mean) hourly earnings of male part-time employees by the average (mean) hourly earnings of male full-time employees, showing this as a percentage and again subtracting the figure from 100 per cent. The same approach can be followed but using the median rather than the mean.²

Overall gender pay gaps

Female employees working full-time in the UK in 2010 earned 84.5 per cent of the average (mean) hourly earnings of men (excluding overtime) who worked full-time. This meant that the full-time gender pay gap in hourly earnings was 15.5 per cent (Table 1).

The full-time gender pay gap was even wider in weekly than hourly earnings (21.5 per cent). On average, men working full-time worked more hours per week than women (40.4 hours compared with 37.4 hours). In addition, weekly overtime payments were three times higher for male than female full-timers.³ The full-time gender pay gap was even wider in annual than in weekly earnings at 26.1 per cent.⁴

Women working part-time in the UK in 2010 earned 65.5 per cent of the average (mean) hourly earnings of men who worked full-time. This meant that the part-time women's pay gap was 34.5 per cent.

Table 1: Average (mean) earnings of UK employees, 2010			
	Hourly £	Weekly £	Annual £
Women: full-time	13.73	513.1	26,467
Men: full-time	16.25	653.3	35,814
Women: part-time	10.64	194.5	10,574
Men: part-time	12.06	208.9	12,649
Women: all	12.92	377.3	19,711
Men: all	16.00	595.5	33,186
Full-time gender pay gap: women F/T as % of men F/T	15.5%	21.5%	26.1%
Part-time women's pay gap: women P/T as % of men F/T	34.5%	70.2%	70.5%
Part-time men's pay gap: men P/T as % of men F/T	25.8%	68.0%	64.7%
Women (all) as % of men (all)	19.2%	36.6%	40.6%
<i>Notes:</i>	Hourly earnings excluding overtime; gross weekly and annual earnings (that is, including overtime and any additional payments). ⁵		
<i>Source:</i>	Office for National Statistics (ONS), Annual Survey for Hours and Earnings (ASHE) 2010, Tables 1.1a, 1.6a and 1.7a.		

Mean or median?

An alternative way of examining the full-time gender pay gap is to look at median, rather than mean, earnings (see Table A1 in the Appendix). This measure is preferred by the ONS because the median is not affected by extreme values, such as the changes to earnings of small numbers of very high earners or very low earners.⁶ However, unlike the median, the mean captures the full pay gap and does not exclude those on very high earnings. Full-time gender pay gaps based on median figures are usually narrower; in 2010, the full-time gender pay gaps in hourly and weekly earnings were 10.2 per cent and 18.4 per cent when the median was used. However, the part-time women's pay gap for median earnings was 38.5 per cent, a wider gap than that for mean earnings (34.5 per cent).⁷

Overall pay gap trends (1970-2010)

Although there have been a number of discontinuities in the data, most notably a change from the New Earnings Survey (NES) to the Annual Survey of Hours and Earnings (ASHE), which have had some impact on the results, it is nevertheless possible to track trends in the gender pay gap over the whole 40-year period from the enactment of the Equal Pay Act in 1970 (although it was not implemented until 1975) until 2010 (Tables 2 and 3). Table 2 shows that the full-time gender pay gap fell by nearly five percentage points in 1975, a one-off rate of decline not matched

since. Between 1976 and 1988, overall progress in narrowing the full-time gender pay gap in GB was intermittent, but turned into a slow downward trend between 1987 and 1997.

Although the NES was not replaced by the ASHE until 2004, it is possible to use ASHE data to calculate the full-time gender pay gap for the UK (and for GB) from 1997 onwards (Table 3).⁸ It should be noted that the methodological change from the NES to the ASHE in 1997 had the effect of ‘increasing’ the full-time gender pay gap by almost one percentage point.⁹ Since 1998, the overall trend has been for the full-time gender pay gap to narrow, although there have been some fluctuations in this. Table 3 also shows that the full-time gender pay gap has been slightly wider in the UK than in GB each year since 1998. A recent analysis of the gender pay gap in Northern Ireland has argued that its low gender pay gap compared with the rest of the UK appears to be largely due to a public sector ‘premium’; a slightly lower level of general wage inequality and a lower female participation rate were other contributing factors.¹⁰ The part-time women’s pay gap has also been very slightly wider in GB than in the UK since 1999. That the UK/GB difference has been less for this pay gap than for the full-time gender pay gap is due in part to the fact that average earnings of female part-time employees in Northern Ireland have usually been higher than in Wales and, sometimes, than in Scotland; indeed, in 2008, they were actually the highest of the four UK nations.¹¹

Table 2 also shows that the part-time women’s pay gap in GB fell sharply between 1974 and 1975, but thereafter fluctuated in GB/the UK until the early 2000s. Since 2002, except between 2007 and 2008, this pay gap has fallen year on year in the UK. Nevertheless, when the whole 40 year period since 1970 is considered as a whole (and the various changes to surveys and to methodologies taken into account), it is clearly evident from Tables 2 and 3 that the full-time gender pay gap has narrowed to a much greater extent than the part-time women’s pay gap. Thus the full-time gender pay gap narrowed by around 20 percentage points between 1970 and 2010, whereas the part-time women’s pay gap narrowed by only around 14 percentage points in the same period.

	Per cent:	
	Full-time gender pay gap	Part-time women's pay gap
1970	36.2	48.5
1971	36.3	48.3
1972	35.5	48.1
1973	35.6	47.6
1974	34.1	46.4
1975	29.4	41.6
1976	26.5	40.5
1977	26.2	39.7
1978	27.8	41.2
1979	28.7	42.1
1980	28.2	41.7
1981	27.2	42.0
1982	28.1	43.0
1983	27.8	42.8
1984	26.6	42.3
1985	26.1	42.2
1986	25.9	43.1
1987	26.6	43.7
1988	25.1	43.8
1989	24.0	42.9
1990	23.4	42.7
1991	22.2	41.8
1992	21.2	41.5
1993	21.1	41.4
1994	20.5	41.3
1995	20.4	40.4
1996	20.1	42.1
1997	19.8	41.2
<i>Notes:</i>	All data for full-timers exclude overtime, but part-time figures include the effect of overtime. Prior to 1984, data are for women aged 18 and over and for men aged 21 and over. From 1984, they are for employees on adult rates. Data are for GB, not UK, as the NES did not cover Northern Ireland.	
<i>Source:</i>	NES, 1970-97 (Equality and Human Rights Commission analysis).	

Table 3: Gender pay gaps in average (mean) hourly earnings, UK and GB, 1997-2010				
	Per cent:			
	Full-time gender pay gap		Part-time women's pay gap	
	UK	GB	UK	GB
1997	20.7	20.7	41.9	42.1
1998	21.2	21.3	41.9	42.1
1999	20.5	20.6	41.5	41.6
2000	20.2	20.4	41.2	41.4
2001	20.0	20.1	42.5	42.6
2002	20.1	20.3	42.6	42.8
2003	19.4	19.5	40.9	41.1
2004	17.8	17.9	39.6	39.8
2005	17.1	17.2	37.6	37.8
2006	17.6 (17.3)	17.7 (17.5)	36.8 (36.9)	37.1 (37.3)
2007	16.9	17.2	35.8	36.1
2008	17.3	17.6	36.9	37.5
2009	16.4	16.6	35.3	35.7
2010	15.5	15.7	34.5	34.7
<i>Notes:</i>	Data are for employees on adult rates and revised data shown as appropriate. 2004 data include supplementary information. 2006 and subsequent data are based on a new methodology adopted in 2007. 2006 data based on methodology used between 1997 and 2005 are in brackets, showing that the increase in the full-time gender pay gap between 2005 and 2006 was partly due to this methodological change.			
<i>Source:</i>	ONS, ASHE 1997-2010, Table 1.6a.			

The full-time gender pay gap in median earnings in the UK has been between three and five percentage points narrower than the equivalent figure in mean earnings since 1997, with the difference between the two figures being wider in 2010 (at 5.3 percentage points) than in any other year (see Table A3). As in the case of mean earnings, the overall trend in the full-time gender pay gap has been downwards since 1997, albeit with some fluctuations. The narrowing of the full-time gender pay gap by two percentage points between 2009 and 2010 represented the largest fall since 1997. This reflected the fact that while the median hourly earnings of full-time female employees rose by 29 pence, close to the average over the previous 12 years of 37 pence, those of full-time male employees increased by only 4 pence, compared with the previous annual average rise of 38 pence. In nearly half the years since 1997, the increase in women's actual median earnings (as measured in pence)

exceeded that of men's, but this was usually by small amounts only, and the gender difference in 2010 at 25 pence was larger than in any previous year.¹²

Particular gender pay gaps

The gender pay gap across occupations

In all major occupational groups, mean hourly earnings for men working full-time in 2010 were higher than for women (Table 4). But the size of the full-time gender pay gap varied considerably between occupations. Among the nine major occupational groups, the gap was widest for managers and senior officials, the group where average male earnings were highest; the gap was narrowest for sales and customer service occupations, which had the second lowest average male earnings. Full-time gender pay gaps were also much narrower than average in administrative and secretarial and personal service occupations, where pay rates of both women and men are both relatively low; they were also particularly narrow in professional occupations.

	Women F/T £	Women P/T £	Men F/T £	Men P/T £	Full-time gender pay gap (%)	Part-time women's pay gap (%)
Managers and senior officials	18.66	15.74	24.67	xxx	24.4	36.2
Professional occupations	20.43	22.82	22.47	27.55	9.1	-1.6
Associate professional and technical	14.85	14.77	16.84	15.41	11.8	12.3
Administrative and secretarial	10.80	9.54	12.05	9.73	10.4	20.8
Skilled trades	8.86	7.89	11.59	10.63	23.6	31.9
Personal service	8.86	8.72	9.82	8.70	9.8	11.2
Sales and customer service	8.23	6.98	8.83	7.10	6.8	21.0
Process, plant and machine operatives	8.27	7.84	10.23	9.67	19.2	23.4
Elementary	7.59	6.80	8.60	7.04	11.7	20.9
All	13.73	10.64	16.25	12.06	15.5	34.5
<i>Notes:</i>	xxx: data not shown as the published coefficients of variation of the earnings estimates are greater than 5%.					
<i>Source:</i>	ONS, ASHE 2010, Table 14.6a.					

When median rather than mean hourly earnings are considered (Table A4), the narrowest full-time gender pay gap was for professional occupations at 4.1 per cent, followed by associate professional and technical, and sales and customer service occupations (6.0 and 6.4 per cent respectively). The widest full-time gender pay gap was for skilled trades (26.0 per cent). In six out of nine cases, this gap was wider for mean than for median hourly earnings, but in the remaining three occupational groups, the gap was wider for median earnings. In all three of these groups, skilled trades, process, plant and machine operatives, and elementary occupations, mean and median earnings are below the average for all occupations for both women and men.

Where the difference between the mean and median full-time gender pay gap in a particular occupation is wider than usual (for example, in professional occupations), the reason is that a higher proportion of full-time male than full-time female employees in the occupation have particularly high earnings. This can be demonstrated through an analysis of the distributions within professional occupations, specifically by comparing the median (the 50th percentile) with the ninth decile (90th percentile). Across all occupations as a whole, the median full-time gender pay gap was 10.2 per cent and the 90th percentile was 19.3 per cent in 2010 (see Table 14). But in professional occupations, while the median was only 4.1 per cent (less than half the overall median), the 90th percentile was 16.3 per cent, only three percentage points less than the overall figure and nearly four times the median.¹³

The extent of the part-time women's pay gap also varies considerably between occupations. In one occupational group, professional occupations, women working part-time had higher mean and median earnings than men working full-time (as they had in 2009)¹⁴, while both women and men working part-time had higher mean and median earnings than their full-time counterparts; at the other extreme, the part-time women's pay gap in mean and median earnings was 36.2 and 36.5 per cent respectively for managers and senior officials.

Moreover, whereas in some occupational groups, such as associate professional and technical services, there is a small difference between the size of the full-time mean gender pay gap and the part-time women's pay gap, in others, there is a substantial difference, notably in sales and customer services. One other feature of the part-time women's pay gap is that, with the exception of managers and senior officials, the gap in all major occupational groups was lower than the overall average of 34.5 per cent in 2010. That the high part-time women's pay gap among managers and senior officials should have such a disproportionate effect on the overall gap may be

because managers and senior officials make up a much smaller proportion of all female part-time employees than they do of all male full-time employees.¹⁵

In several occupations, the difference in mean hourly earnings between women and men working part-time is very small; for example, just two pence in personal service occupations. The gap is widest in cash terms in professional occupations at £4.73.

The trend in the full-time gender pay gap by occupational group has been relatively consistent in recent years; thus in 2010, as well as in 2008 and 2009, the widest gaps were for managers and senior officials and skilled trades, and the narrowest gaps were for sales and customer service and professional occupations.¹⁶ Moreover, in seven out of nine groups, the gap was narrower in 2010 than in 2009. The recent trend (that is, since 2008) in the part-time women's pay gap has been for it to be consistently wide for managers and senior officials and for skilled trades.¹⁷

The size of the full-time gender pay gap within individual occupations can vary considerably from the overall gap for that occupation. For example, as shown in Table 5, this gap in hourly earnings in professional occupations as a whole was 9.1 per cent (the second lowest among the nine occupational groups). But the gap was as wide as 27.2 per cent for health professionals, 25.4 per cent for legal professionals and 22.0 per cent for business and statistics professionals. In contrast, mean hourly earnings were higher for female than male full-time public service professionals. There were some similarities between the situation in 2010 and that in both 2009 and 2008. For example, in all three years, the overall gap in professional occupations was 9-10 per cent, while those for health, legal and business and statistics professionals were much higher than this; moreover, women public service professionals had higher average earnings than their male counterparts.¹⁸

Table 5: Average (mean) hourly earnings of full-time employees in professional occupations, UK, 2010						
	SOC 2000	Women £	Men £	Full-time gender pay gap (%)	Total number of employees (thousands)	Female share of full-time employees (%)
Science professionals	211	17.65	21.64	18.4	134	42
Engineering professionals	212	16.46	18.70	12.0	435	6
Information and communication technology professionals	213	19.33	21.00	8.0	425	12
Health professionals	221	26.46	36.36	27.2	248	45
Teaching professionals	231	20.66	23.22	11.0	1,361	62
Research professionals	232	16.52	17.94	7.9	70	41
Legal professionals	241	24.54	32.89	25.4	121	51
Business and statistics professionals	242	19.49	24.99	22.0	346	37
Architects, town planners and surveyors	243	16.91	20.30	16.7	141	12
Public service professionals	244	17.14	16.77	-2.2	189	54
Librarians and related professionals	245	14.51	xxx	xxx	41	72
All professional occupations	2	20.43	22.47	9.1	3,390	39
<i>Notes:</i>	Employment data are from the Labour Force Survey (LFS) and are for all employees for April-June 2010. Three-digit number categories. xxx: data not shown as coefficient of variation greater or equal to 5%. SOC 2000 refers to the Standard Occupational Classification 2000.					
<i>Source:</i>	ONS, ASHE 2010, Table 14.6a; Labour Force Survey: Employment status by occupation and sex, April - June 2010, available at: http://www.statistics.gov.uk/statbase/product.asp?vlnk=14248 (accessed February 2011).					

There is no clear relationship between women's share of employment in a particular professional occupation and the size of the full-time gender pay gap. For example, women comprised just over half of all full-time legal professionals and public service professionals. Yet as noted above, the gap for legal professionals was more than twice as wide as the gap for the occupational group as a whole, while mean full-time earnings were higher for women than men in public service professional occupations. In addition, the high number of teaching professionals and the high female share of employment in the occupation had the effect of pushing up the overall full-time gender pay gap in professional occupations.

The pattern for median hourly earnings (Table A5) in 2010 was broadly similar to that for mean earnings, except that the female advantage over male earnings among public service professionals was much higher than for the mean at 8.9 per cent.

The gender pay gap in high-paid and low-paid occupations

In 2010, there were at least 13 four-digit level occupations where average hourly earnings of full-time employees exceeded £25.¹⁹ As Table 6 shows, men comprised the majority of employees in 10 of these occupations, with women comprising the majority only of hospital and health service managers; personnel, training and industrial relations managers; and solicitors, lawyers, judges and coroners. Conversely, women formed the majority of employees in 11 out of the 16 occupations where average hourly earnings of full-time employees were lower than £8 (and there were at least 10,000 employees in total) (Table 7). Thus men continue to dominate most high-paid occupations and women to predominate in most low-paid occupations.

In addition, in the 13 highest paid occupations, the majority of both male and female employees worked full-time, and part-time work was a rarity; in only one of these occupations (higher education teaching professionals), more than one-fifth of all employees worked part-time (the average across all occupations was 27 per cent). Conversely, part-time work was much more prevalent in low-paid occupations; in nine out of the 16 lowest paid occupations, part-time workers comprised more than 50 per cent of all employees.²⁰

Men similarly comprised the majority of employees in eight out of the 10 occupations with median hourly earnings of more than £23 per hour, while women comprised the majority in 11 out of 15 occupations with median hourly earnings of less than £7.50 per hour (Tables A6 and A7).

Table 6: Highest paid occupations of full-time employees, UK, 2010				
	SOC 2000	Average hourly (mean) earnings £	Number of female employees (thousands)	Number of male employees (thousands)
Directors and chief executives of major organisations	1,112	55.93	xx	51
Medical practitioners	2,211	35.46	79	84
Financial managers and chartered secretaries	1,131	34.74	85	124
Solicitors and judges, lawyers and coroners	2,411	29.32	59	47
Police officers (inspectors and above)	1,172	29.03	xx	10
Research and development managers	1,137	26.11	21	38
Marketing and sales managers	1,132	26.06	154	324
Information and communication technology managers	1,136	25.77	50	226
Hospital and health service managers	1,181	25.73	58	16
Higher education teaching professionals	2,311	25.61	53	81
Financial institution managers	1,151	25.50	54	89
Personnel, training and industrial relations managers	1,135	25.45	74	54
Purchasing managers	1,133	25.34	19	34
<i>Notes:</i>	Employment data are from the Labour Force Survey and are for all employees for April-June 2010. Some occupations which will have higher average earnings are not shown here because of low sample sizes in ASHE. xx - less than 10,000 full-time employees. Although directors appear in the SOC, in legal terms they are not employees. They are not therefore covered by the equal pay provisions of the Equality Act 2010, nor would they be included in any equal pay provisions of the Equality Act 2010 or in any equal pay audit. SOC 2000 refers to the Standard Occupational Classification 2000.			
<i>Source:</i>	ONS, ASHE 2010, Table 14.6a; Labour Force Survey: Employment status by occupation and sex, April-June 2010, available at: http://www.statistics.gov.uk/statbase/product.asp?vlnk=14248 (accessed February 2011).			

	SOC 2000	Average hourly (mean) earnings £	Number of female employees (thousands)	Number of male employees (thousands)
Bar staff	9,225	6.44	107	85
Leisure and theme park attendants	9,226	6.68	xx	14
Launderers, dry cleaners, pressers	9,234	6.69	18	xx
Kitchen and catering assistants	9,223	6.82	278	115
Waiters, waitresses	9,224	6.88	177	68
Retail cashiers and check-out operators	7,112	7.06	186	68
Cleaners, domestics	9,233	7.35	378	129
Fishing and agriculture related occupations not elsewhere classified	9,119	7.37	xx	13
Hairdressers, barbers	6,221	7.65	77	xx
Housekeepers and related occupations	6,231	7.74	52	xx
Shelf fillers	9,251	7.76	48	75
Sewing machinists	8,137	7.79	19	xx
Farm workers	9,111	7.83	xx	34
Elementary occupations not elsewhere classified	9,219	7.83	17	14
Packers, bottlers, canners, fitters	9,134	7.85	60	74
Sales and retail assistants	7,111	7.88	794	383
<i>Notes:</i>	Employment data are from the Labour Force Survey and for all employees for April-June 2010. Some occupations which will have higher average earnings are not shown here because of low sample sizes in ASHE or because they have less than 10,000 female and 10,000 male employees. xx - less than 10,000 employees. SOC 2000 refers to the Standard Occupational Classification 2000.			
<i>Source:</i>	ONS, ASHE 2010, Table 14.6a; Labour Force Survey: Employment status by occupation and sex, April-June 2010, available at: http://www.statistics.gov.uk/statbase/product.asp?vlnk=14248 (accessed February 2011).			

The gender pay gap in sectors and industries

For both full-time and part-time workers, average hourly and weekly earnings are higher for both women and men in the public than in the private sector; moreover, both the full-time gender pay gap and the part-time women's pay gap are narrower in the public sector than in the private sector (Table 8).²¹ Since at least 1997, the full-time gender pay gap in hourly earnings has been consistently narrower in the public

sector than the private sector. The gap in the private sector reduced from 26.6 per cent in 1997 to 21.8 per cent in 2010. In contrast, the full-time gender pay gap in the public sector was 13.4 per cent in 2010, and although this was lower than in 2009 (14.3 per cent), it was higher than in six other years in the 2000s.²² The part-time women's pay gap was much higher in the private sector than the public sector in 2010 and declined to a greater extent between 2009 and 2010 in the public than the private sector.²³ The overall pattern for full-time gender pay gaps in median hourly earnings in 2010 was similar to that for mean earnings (Table A8). In sharp contrast, however, whereas mean earnings of male full-time and part-time public sector employees were almost identical in 2010, there was a 21.4 per cent gap in the part-time men's median pay gap in this sector. The part-time men's pay gap was also much wider in the private sector for median earnings (43.9 per cent) than mean earnings (35.4 per cent).

Table 8: Average (mean) hourly earnings of public and private sector employees, UK, 2010		
	Private sector	Public sector
	£	£
Women: full-time	12.27	15.60
Men: full-time	15.70	18.02
Women: part-time	9.02	12.77
Men: part-time	10.14	18.08
Full-time gender pay gap: women F/T as % of men F/T	21.8%	13.4%
Part-time women's pay gap: women P/T as % of men F/T	42.5%	29.1%
Part-time men's pay gap: men P/T as % of men F/T	35.4%	-0.3%
<i>Notes:</i>	Hourly earnings excluding overtime. The part-time men's pay gap in the public sector is not statistically significant.	
<i>Source:</i>	ONS, ASHE 2010, Table 13.6a.	

The size of the full-time gender pay gap also varies between industries. As Table 9 reveals, the hourly full-time gender pay gap in 2010 was particularly narrow in transportation and storage and administrative and support service occupations. It was much wider than average in 2010 in electricity, gas, steam and air conditioning, in real estate activities, professional scientific and technical activities, human health and social work activities and, in particular, in financial and insurance activities. The patterns were similar for weekly earnings.²⁴ As in the case of occupations, there is a relationship between high average male earnings and wide full-time gender pay

gaps. Thus, for example, in the 18 industries for which average male full-time earnings are shown here, the gap was widest in financial and insurance activities (which had the highest male mean hourly earnings). In manufacturing, and in wholesale and retail trade and repairs, however, the full-time gender pay gap was relatively wide even though mean earnings of male full-time employees were below the average for all industries.

	Women £	Men £	Full-time gender pay gap (%)
Agriculture, forestry and fishing	8.79	10.00	12.1
Mining and quarrying	xxx	20.63	xxx
Manufacturing	11.71	14.56	19.6
Electricity, gas, steam and air conditioning	13.81	19.44	29.0
Water supply, sewerage and waste management	xxx	12.85	xxx
Construction	12.78	14.77	13.5
Wholesale and retail trade; repair of motor vehicles	10.63	13.15	19.2
Transportation and storage	13.11	13.49	2.8
Accommodation and food service activities	8.31	9.47	12.2
Information and communication	17.13	21.40	20.0
Financial and insurance activities	17.53	28.53	38.6
Real estate activities	12.59	17.32	27.3
Professional scientific and technical activities	16.11	22.45	28.2
Administrative and support service	11.28	12.03	6.2
Public administration and defence; compulsory social security	14.37	16.88	14.9
Education	15.84	17.80	11.0
Human health and social work activities	13.66	19.19	28.8
Arts, entertainment and recreation	11.07	xxx	xxx
Other service	11.66	14.83	21.4
All	13.73	16.25	15.5
<i>Notes:</i>	Three-digit number categories. xxx: data not shown as the published coefficients of variation of the earnings estimates are greater than 5%.		
<i>Source:</i>	ONS, ASHE, 2010, Table 4.6a.		

When median hourly earnings are considered (Table A9), one notable feature was that they were higher for women than for men in one industry, transportation and storage.²⁵ Median pay gaps were again particularly narrow in administrative and support services. As in the case of mean earnings, the full-time gender pay gap was widest in financial and insurance activities and also particularly wide in electricity, gas, steam and air conditioning. The percentage point difference in the full-time gender pay gap between mean and median hourly earnings was particularly wide in real estate activities (a mean gap of 27.3 per cent and a median gap of 17.6 per cent), public administration and related activities (a mean gap of 14.9 per cent and a median gap of 6.0 per cent), and human health and social work activities (a mean gap of 28.8 per cent and a median gap of 19.1 per cent). In contrast, the mean and median full-time gender pay gap in financial and insurance activities was exactly the same.

The gender pay gap in UK nations and English regions

In 2010, average hourly and weekly earnings for full-time employees were highest in England for both women and men, and lowest in Wales and Northern Ireland (Table 10).²⁶ Conversely, the full-time gender pay gap was much lower in Northern Ireland and Wales than in England and Scotland, reflecting the fact that average male earnings were well below the UK average. The part-time women's pay gap was narrowest in Northern Ireland and widest in England, again reflecting the wide difference in average male full-time earnings between the two UK nations.

When median earnings are considered (Table A10), a striking feature of the data was that in Northern Ireland, there was virtually no full-time gender pay gap at all in 2010, with median earnings of male and female full-time employees being almost identical. The median full-time gender pay gap was five percentage points narrower than the equivalent gap in mean earnings in England and Scotland; however, in Wales, the median full-time gender pay gap was narrower than the mean gap.

Table 10: Average (mean) hourly earnings of employees, UK nations, 2010				
	England £	Scotland £	Wales £	Northern Ireland £
Women: full-time	13.86	13.51	12.69	12.50
Men: full-time	16.58	15.34	13.54	13.10
Women: part-time	10.77	10.18	9.79	9.92
Men: part-time	12.38	10.30	9.90	xxx
Full-time gender pay gap: women F/T as % of men F/T	16.4%	11.9%	6.3%	4.6%
Part-time women's pay gap: women P/T as % of men F/T	35.0%	33.6%	27.7%	24.3%
Part-time men's pay gap: men P/T as % of men F/T	25.3%	32.9%	26.9%	xxx
<i>Notes:</i>	Hourly earnings excluding overtime; gross weekly and annual earnings. xxx: data not shown as the published coefficients of variation of the earnings estimates are greater than 5%.			
<i>Source:</i>	ONS, ASHE 2010, Table 7.6a.			

As shown in Table 11, the full-time gender pay gap in mean hourly earnings has declined in all four nations since 1997. The extent of the reduction in the gap has varied considerably; whereas in England, it fell by only four percentage points between 1997 and 2010, the equivalent figures for Scotland, Wales and Northern Ireland were nine, 11 and 13 percentage points respectively. Moreover, in all four nations, the 2010 full-time gender pay gap was the narrowest yet recorded. It is also the case that the full-time gender pay gap in GB was narrowest in Wales and widest in England in every year between 1998 and 2010. In addition, since 2002, this gap in mean hourly earnings in Northern Ireland has been narrower than in Wales.

When median hourly earnings are analysed over time (Table A11), the pattern is rather different. While in every year since 1997, Northern Ireland has had a smaller full-time gender pay gap than the other three nations, culminating in virtually no gap at all in 2010, the trends in Scotland and Wales have more closely resembled that of England for much of the period. The size of this pay gap in Wales and Scotland continues to fluctuate, although since 2003, it has been consistently narrower in Scotland than in England.

Table 11: Full-time gender pay gaps in mean hourly earnings, UK nations, 1997-2010				
	Per cent:			
	England	Scotland	Wales	Northern Ireland
1997	20.8	20.9	17.4	17.6
1998	21.5	20.8	16.8	17.0
1999	20.5	18.8	14.8	14.7
2000	20.6	19.1	14.4	14.5
2001	20.5	17.2	13.1	15.2
2002	20.5	19.4	15.2	12.3
2003	19.8	17.8	13.5	12.7
2004	18.4	14.0	13.5	9.4
2005	17.9	12.0	11.4	9.9
2006	18.3	13.7	12.0	7.6
2007	17.6	14.8	10.7	6.9
2008	18.1	13.1	12.6	7.7
2009	17.2	12.4	8.9	8.5
2010	16.4	11.9	6.3	4.6

Source: ONS, ASHE 1997-2010, Table 7.6a.

The full-time gender pay gap in mean hourly earnings was also wider in all English regions than in Wales and in most English regions than in Scotland in 2010 (Table 12). The gap was particularly wide in London and in the South East, again in line with trends since 1997; in all years, the gap was widest in London and in all except for three years, the next widest gap was in the South East.²⁷ This is despite the fact that average earnings of female full-time employees were higher in London and the South East in 2010 than in any other English region. Further analysis of the distribution of the earnings of male full-time employees in London shows that the difference (in pounds) between the median and 90th percentile was very high at £25.79, compared with an average for England of only £16.09.²⁸ The gap was narrowest in the North East and Yorkshire and the Humber, the English regions with the lowest average male earnings. The part-time women's pay gap was wider in London than in any other English region.

In terms of median earnings (Table A12), the full-time gender pay gap was widest in the South East followed by the East Midlands and narrowest in Yorkshire and the Humber and the North West. As for mean earnings, the part-time women's pay gap was widest in London. One other notable feature of median part-time hourly earnings was that they were higher in England as a whole for women (£8.00) than for men

(£7.72) and higher for women than for men in seven out of nine English regions. This was a completely different pattern from that for mean part-time earnings where men working part-time earned more on average than women who did so in all regions where comparisons could be made.²⁹ While it should be noted that in all regions, there are a higher number of female than male part-time employees, this suggests that men who work part-time are disproportionately likely to be low paid. This conclusion is reinforced by the analysis (below) of the distributions of earnings of male and female part-time employees.

	Women F/T £	Women P/T £	Men F/T £	Men P/T £	Full-time gender pay gap (%)	Part-time women's pay gap (%)
North East	12.41	10.08	13.85	xxx	10.4	27.2
North West	13.07	10.13	14.88	10.71	12.2	31.9
Yorkshire and the Humber	12.61	10.00	14.18	11.08	11.1	29.5
East Midlands	12.26	9.47	14.56	10.51	15.8	35.0
West Midlands	12.52	10.43	14.71	11.65	14.9	29.1
East	12.99	10.78	15.43	12.46	15.8	30.1
London	17.76	13.55	22.87	14.95	22.3	40.8
South East	13.88	11.09	17.22	13.02	19.4	35.6
South West	12.42	10.59	14.60	12.69	14.9	27.5
England (all)	13.86	10.77	16.58	12.38	16.4	35.0
<i>Notes:</i>	Hourly earnings excluding overtime; gross weekly and annual earnings. Data are for Government Office regions.					
<i>Source:</i>	ONS, ASHE 2010, Table 7.6a; xxx: data not shown as the published coefficients of variation of the earnings estimates are greater than 5%.					

The gender pay gap across age bands

As shown in Table 13, the full-time gender pay gap in mean hourly earnings was much narrower in 2010 for those aged 22-29 than for any of the five age bands shown in the table.³⁰ This gap then widened considerably for those in their thirties (exceeding that for those aged 18-21) and peaked for those in their forties, before narrowing again in the two older age groups. Exactly the same rank order of pay gap widths occurred in each year between 2005 and 2010 and the pattern was broadly similar in each year from 1997.³¹ A fuller analysis of trends between 1997 and 2010 revealed that the full-time gender pay gap has narrowed more strongly for those aged 22-29 than for any other comparable age group, from 9 per cent in each year between 1997 and 2002 to only 1 per cent in 2010 (Table A13). The full-time gender

pay gap has narrowed for the 30-39 and 40-49 age groups from 13.7 and 24.3 per cent respectively in 2003 to 9.1 and 20.1 per cent respectively in 2010. Over a shorter timescale, the full-time gender pay gap for those aged 50-59 fell from 21.7 per cent in 2004 to 19.3 per cent in 2010, but the figure for those aged 60+ was the same (at 15 per cent) in both 2004 and 2010.³²

Table 13: Average (mean) hourly earnings of full-time employees by age, UK, 2010

	Women F/T £	Men F/T £	Full-time gender pay gap (%)
18-21	7.27	7.82	7.0
22-29	11.57	11.67	0.9
30-39	15.16	16.68	9.1
40-49	14.87	18.62	20.1
50-59	14.38	17.83	19.3
60+	12.68	14.92	15.0
All	13.73	16.25	15.5
<i>Notes:</i> Data for 16-17 year olds are not shown as they include some people not on adult rates.			
<i>Source:</i> ASHE 2010, Table 6.6a.			

The patterns of the median and mean full-time gender pay gaps in 2010 differed slightly (Table A13). The table suggests that women aged 22-29 had higher median earnings than men of the same age in 2010 (only the second time this has occurred, the other being in 2005), but the difference was not statistically significant. Moreover, since 2003, there has been no more than two percentage points' difference in median earnings for this age group. The median gap for those aged 30-39 was much narrower than the mean gap. But the marked widening of the full-time gender pay gap for those aged 40-49 was apparent in median earnings as it had been for mean earnings.

An analysis of trends in median earnings of full-time employees since 1997 reveals greater similarities than differences between each year. For example, in all years, the full-time gender pay gap was widest for those aged 40-49 and this gap was markedly wider for those in their forties than in their thirties. For example, in both 1997 and 2010, there was a difference of 13 percentage points in the full-time gender pay gap for those in their thirties and their forties (and the difference has never been less than 12 percentage points over this period).

Distributions in earnings

As shown in Table 14, the full-time gender pay gap widens with each decile of the earnings distribution. Thus at the first decile (that is, the 10th percentile), this gap was only 6.7 per cent in 2010, whereas at the ninth decile (that is, the 90th percentile), it was as high as 19.3 per cent. A particularly striking feature of the data was that the gap at the 90th percentile was nearly six percentage points wider than that at the 80th percentile, a clear indication of how much impact the highest male earnings has on the overall (mean) full-time gender pay gap.

An analysis of the distributions for all years between 1997 and 2010 reveals that this overall pattern has occurred consistently. In every year since 1997, the full-time gender pay gap has widened either with each decile of the earnings distribution (similar to the pattern shown in Table 14) or for eight out of nine deciles. Moreover, whereas the full-time gender pay gap at the first decile narrowed from 13.6 per cent in 1997 to only 6.7 per cent in 2010, there was virtually no progress at the ninth decile, which fluctuated between 19 and 22 per cent over the whole period and was only marginally lower at the end of the period than at the beginning. Again, this is an indication of the continued impact on the gap of high male earnings.

	Women £	Men £	Full-time gender pay gap (%)
10th percentile	6.72	7.20	6.7
20th percentile	7.89	8.59	8.1
25th percentile (first quartile)	8.44	9.22	8.5
30th percentile	8.97	9.91	9.5
40th percentile	10.19	11.33	10.1
50th percentile (median)	11.68	13.01	10.2
60th percentile	13.54	15.13	10.5
70th percentile	15.71	17.79	11.7
75th percentile (third quartile)	17.06	19.42	12.2
80th percentile	18.57	21.50	13.6
90th percentile	23.10	28.61	19.3

Source: ONS, ASHE 2010, Table 1.6a.

Table 15 shows that the distributions of the hourly earnings of male and female part-time employees follow very different patterns. At the 10th percentile, women and

men working part-time had the same hourly earnings. Women's hourly pay then exceeded men's at each level up to the 60th percentile. But from then on, men had the higher earnings. The implications of these different trends are that a higher proportion of men than women have very low part-time earnings, but also that the relatively small number of part-time employees with above average hourly earnings are predominantly male.³³

	Women P/T £	Men P/T £	Men F/T £	Part-time women's pay gap (%)
10th percentile	5.80	5.80	7.20	19.4
20th percentile	6.17	5.96	8.59	28.2
25th percentile (first quartile)	6.39	6.09	9.22	30.7
30th percentile	6.64	6.32	9.91	33.0
40th percentile	7.24	6.92	11.33	36.1
50th percentile (median)	8.00	7.69	13.01	38.5
60th percentile	8.97	8.85	15.13	40.7
70th percentile	10.44	10.77	17.79	41.3
75th percentile (third quartile)	11.61	12.47	19.42	40.2
80th percentile	13.41	15.12	21.50	37.6
90th percentile	18.98	24.50	28.61	33.7

Source: ONS, ASHE 2010, Table 1.6a.

Conclusions and further research

This paper provides a detailed description of the gender pay gap in the UK. It has not sought to assess what factors have the most impact on the full-time gender pay gap and in fact cannot do this using ASHE. There have been many previous studies which seek to break down the gender pay gap into their component elements and to assess which are the most important, but this is a much more substantial undertaking than that attempted here and would require the analysis of datasets with much more extensive information on personal characteristics, such as the LFS or the BHPS. In particular, the cross-cutting relationship between race and pay and hours of work, and age and pay and hours of work requires further exploration.

Appendix A: Median earnings

(Note that the tables in Appendix A are numbered to correspond with the equivalent numbers of the tables for mean earnings in the main text)

Table A1: Average (median) earnings of UK employees, 2010			
	Hourly £	Weekly £	Annual £
Women: full-time	11.68	439.0	22,490
Men: full-time	13.01	538.2	28,091
Women: part-time	8.00	157.2	8,586
Men: part-time	7.69	142.1	8,198
Women: all	9.90	316.2	16,332
Men: all	12.35	497.1	26,276
Full-time gender pay gap: women F/T as % of men F/T	10.2%	18.4%	19.9%
Part-time women's pay gap: women P/T as % of men F/T	38.5%	70.8%	69.4%
Part-time men's pay gap: men P/T as % of men F/T	40.9%	73.6%	70.8%
Women (all) as % of men (all)	19.8%	36.4%	37.8%
<i>Notes:</i>	Hourly earnings excluding overtime; gross weekly and annual earnings (that is, including overtime and any additional payments).		
<i>Source:</i>	ONS, ASHE 2010, Tables 1.1a, 1.6a and 1.7a.		

Table A2: No table, as median data are not available for 1970-97 from the NES.

Table A3: Gender pay gaps in median hourly earnings, UK and GB, 1997-2010				
	Full-time gender pay gap		Part-time women's pay gap	
	UK	GB	UK	GB
1997	17.4	17.4	43.7	43.5
1998	17.4	17.4	44.1	44.1
1999	16.4	16.5	44.0	43.8
2000	16.5	16.0	43.7	43.9
2001	16.4	15.4	44.3	44.0
2002	15.5	15.7	44.5	44.3
2003	14.6	14.9	42.8	42.5
2004	14.8	14.2	42.3	42.5
2005	13.0	13.2	40.7	40.4
2006	12.9 (12.6)	13.1 (12.9)	40.0 (40.3)	39.8 (40.1)
2007	12.4	12.7	39.4	39.2
2008	12.6	12.8	40.2	39.9
2009	12.2	12.3	39.7	39.4
2010	10.2	10.5	38.8	39.5
<i>Notes:</i>	Data are for employees on adult rates and revised data shown as appropriate. 2004 data include supplementary information. 2006 and subsequent data are based on a new methodology adopted in 2007. 2006 data based on methodology used between 1997 and 2005 are in brackets, showing that the increase in the gender pay gap between 2005 and 2006 was partly due to this methodological change.			
<i>Source:</i>	ONS, ASHE 1997-2010, Table 1.6a.			

	Women F/T £	Women P/T £	Men F/T £	Men P/T £	Full-time gender pay gap (%)	Part-time women's pay gap (%)
Managers and senior officials	16.18	12.90	20.33	***	20.4	36.5
Professional occupations	19.19	21.24	20.02	23.15	4.1	-4.1
Associate professional and technical	14.19	14.26	15.10	12.67	6.0	5.6
Administrative and secretarial	9.99	8.72	10.85	8.47	7.9	19.6
Skilled trades	8.14	7.00	11.00	7.58	26.0	36.4
Personal service	8.46	7.97	9.14	7.80	7.4	12.8
Sales and customer service	7.56	6.32	8.08	6.40	6.4	21.8
Process, plant and machine operatives	7.50	6.90	9.65	7.50	22.3	28.5
Elementary	7.00	6.30	8.12	6.25	13.8	22.4
All	11.68	8.00	13.01	7.69	10.2	38.5
<i>Source:</i> ONS, ASHE 2010, Table 14.6a.						

Table A5: Average (median) hourly earnings of full-time employees in professional occupations, UK, 2010

	SOC 2000	Women F/T £	Men F/T £	Gender pay gap (%)	Female share of full-time employees (%)
Science professionals	211	16.94	19.28	12.1	42.4
Engineering professionals	212	15.64	17.78	12.0	6.4
Technology professionals	213	17.82	19.42	8.2	12.3
Health professionals	221	21.68	33.24	34.8	45.4
Teaching professionals	231	20.48	22.36	8.4	62.4
Research professionals	232	15.80	17.15	7.9	41.4
Legal professionals	241	21.33	xxx	xxx	51.0
Business and statistics professionals	242	17.88	21.93	18.5	36.8
Architects, town planners and surveyors	243	xxx	18.86	xxx	12.1
Public service professionals	244	16.93	15.54	-8.9	53.5
All professional occupations	2	19.19	20.02	4.3	38.6
<i>Notes:</i>	Employment data are from the Labour Force Survey (LFS) and are for all employees for April-June 2010. Three-digit number categories. xxx: data not shown as coefficient of variation greater or equal to 5%. SOC 2000 refers to the Standard Occupational Classification 2000.				
<i>Source:</i>	ONS, ASHE 2010, Table 14.6a; Labour Force Survey: Employment status by occupation and sex, April-June 2010, available at: http://www.statistics.gov.uk/statbase/product.asp?vlnk=14248 (accessed February 2011).				

Table A6: Highest paid occupations of full-time employees, UK, 2010				
	SOC 2000	Average hourly (median) earnings £	Number of female employees (thousands)	Number of male employees (thousands)
Directors and chief executives of major organisations	1,112	49.13	xxx	51
Medical practitioners	2,211	31.95	79	84
Financial managers and chartered secretaries	1,131	28.21	85	124
Police officers (inspectors and above)	1,172	26.46	xxx	10
Solicitors and judges, lawyers and coroners	2,411	24.51	59	47
Higher education teaching professionals	2,311	24.09	53	81
Research and development managers	1,137	23.94	21	38
Public service administrative professionals	2,441	23.80	14	17
Information and communication technology managers	1,136	23.55	50	226
Hospital and health service managers	1,181	23.02	58	16
<i>Notes:</i>	Employment data are from the Labour Force Survey and are for all employees for April-June 2010. Some occupations which will have higher average earnings are not shown here because of low sample sizes in the ASHE. xx - less than 10,000 full-time employees. Although directors appear in the SOC, in legal terms they are not employees. They are not therefore covered by the equal pay provisions of the Equality Act 2010, nor would they be included in any equal pay provisions of the Equality Act 2010 or in any equal pay audit. SOC 2000 refers to the Standard Occupational Classification 2000.			
<i>Source:</i>	ONS, ASHE 2010, Table 14.6a; Labour Force Survey: Employment status by occupation and sex, April-June 2010, available at: http://www.statistics.gov.uk/statbase/product.asp?vlnk=14248 (accessed February 2011).			

Table A7: Lowest paid occupations of full-time employees, UK, 2010				
	SOC 2000	Average hourly (median) earnings £	Number of female employees (thousands)	Number of male employees (thousands)
Bar staff	9,225	6.00	107	85
Launderers, dry cleaners, pressers	9,234	6.20	18	xx
Waiters, waitresses	9,224	6.25	177	68
Leisure and theme park attendants	9,226	6.31	xx	14
Kitchen and catering assistants	9,223	6.35	278	115
Hairdressers, barbers	6,221	6.65	77	xx
Retail cashiers and check-out operators	7,112	6.72	186	68
Cleaners, domestics	9,233	6.98	378	129
Fishing- and agriculture-related occupations not elsewhere classified	9,119	7.03	xx	13
Packers, bottlers, canners, fillers	9,134	7.05	60	74
Sewing machinists	8,137	7.14	19	xx
Housekeepers and related occupations	6,231	7.16	52	xx
Sales and retail assistants	7,111	7.14	794	383
Elementary office occupations	9,219	7.20	17	14
Shelf fillers	9,251	7.34	48	75
<i>Notes:</i>	Employment data are from the Labour Force Survey and for all employees for April-June 2010. Some occupations which will have higher average earnings are not shown here because of low sample sizes in the ASHE or because they have less than 10,000 female and 10,000 male employees. xx - less than 10,000 employees. SOC 2000 refers to the Standard Occupational Classification 2000.			
<i>Source:</i>	ONS, ASHE 2010, Table 14.6a; Labour Force Survey: Employment status by occupation and sex, April-June 2010, available at: http://www.statistics.gov.uk/statbase/product.asp?vlnk=14248 (accessed February 2011).			

Table A8: Average (median) hourly earnings of public and private sector employees, UK, 2010		
	Private sector	Public sector
Women: full-time	9.75	14.08
Men: full-time	12.15	15.65
Women: part-time	6.96	9.77
Men: part-time	6.82	12.30
Full-time gender pay gap: women F/T as % of men F/T	19.8%	10.0%
Part-time women's pay gap: women P/T as % of men F/T	42.7%	37.6%
Part-time men's pay gap: men P/T as % of men F/T	43.9%	21.4%
<i>Notes:</i>	Hourly earnings excluding overtime.	
<i>Source:</i>	ONS, ASHE 2009, Table 13.6a.	

Table A9: Average (median) hourly earnings of full-time employees by industry, UK, 2010			
	Women F/T £	Men F/T £	Full-time gender pay gap (%)
Agriculture, forestry and fishing	xxx	8.40	xxx
Mining and quarrying	xxx	xxx	xxx
Manufacturing	9.58	12.30	22.1
Electricity, gas, steam and air conditioning	11.29	17.10	34.0
Water supply, sewerage and waste management	xxx	11.30	xxx
Construction	10.91	12.50	12.7
Wholesale and retail trade; repair of motor vehicles	8.49	10.10	15.9
Transportation and storage	11.32	11.10	-2.0
Accommodation and food service activities	7.00	7.48	6.4
Information and communication	14.55	17.92	18.8
Financial and insurance activities	13.42	21.86	38.6
Real estate activities	11.02	13.37	17.6
Professional scientific and technical activities	13.74	18.06	23.9
Administrative and support service	9.06	9.45	4.1
Public administration and defence; compulsory social security	13.11	15.61	6.0
Education	14.77	16.34	9.6
Human health and social work activities	11.96	14.79	19.1
Arts, entertainment and recreation	9.43	10.33	8.7
Other service	9.76	12.12	19.5
All	11.68	13.01	10.2
<i>Notes:</i>	Three-digit number categories. xxx: data not shown as the published coefficients of variation of the earnings estimates are greater than 5%.		
<i>Source:</i>	ONS, ASHE, 2010, Table 4.6a.		

	England £	Scotland £	Wales £	Northern Ireland £
Women: full-time	11.78	11.66	10.72	10.86
Men: full-time	13.23	12.56	11.65	10.85
Women: part-time	8.00	8.18	7.60	7.95
Men: part-time	7.72	7.55	7.06	8.15
Full-time gender pay gap: women F/T as % of men F/T	11.0%	7.2%	8.0%	-0.1%
Part-time women's pay gap: women P/T as % of men F/T	39.5%	34.9%	34.8%	26.7%
Part-time men's pay gap: men P/T as % of men F/T	41.6%	39.1%	39.4%	24.9%
<i>Notes:</i>	Hourly earnings excluding overtime; gross weekly and annual earnings.			
<i>Source:</i>	ONS, ASHE 2010, Table 7.6a.			

	Per cent:			
	England	Scotland	Wales	Northern Ireland
1997	17.2	18.4	17.5	16.5
1998	17.3	19.1	17.7	14.8
1999	16.0	16.7	17.2	13.4
2000	16.3	18.0	15.9	11.7
2001	16.1	17.0	15.9	10.3
2002	15.8	15.8	16.3	9.0
2003	15.0	13.2	15.1	8.6
2004	14.6	11.6	14.9	6.1
2005	13.5	9.0	12.2	5.3
2006	13.3	10.7	12.5	1.7
2007	12.7	11.9	9.3	2.5
2008	12.8	10.8	13.7	2.6
2009	12.7	8.6	12.6	3.6
2010	11.0	7.2	8.0	-0.1
<i>Source:</i>	ONS, ASHE 1997-2010, Table 7.6a.			

	Women F/T £	Men F/T £	Women P/T £	Men P/T £	Full-time gender pay gap (%)	Part-time women's pay gap (%)
North East	10.61	11.74	7.43	7.26	9.6	36.7
North West	11.15	12.13	7.55	7.28	8.9	37.8
Yorkshire and the Humber	10.76	11.78	7.56	7.24	8.7	35.8
East Midlands	10.28	11.97	7.41	7.46	14.1	38.1
West Midlands	10.72	12.18	7.76	7.46	12.0	36.3
East	11.12	12.67	8.10	7.50	12.2	36.1
London	15.65	17.89	9.76	8.93	12.5	45.4
South East	11.84	14.24	8.36	7.79	16.9	41.3
South West	10.50	11.98	8.06	8.11	12.4	32.7
England (all)	11.78	13.23	8.00	7.72	11.0	39.5
<i>Notes:</i> Hourly earnings excluding overtime; gross weekly and annual earnings. Data are for Government Office regions.						
<i>Source:</i> ONS, ASHE 2009, Table 7.6a.						

	Women F/T £	Men F/T £	Gender pay gap (%)
18-21	6.90	7.05	2.1
22-29	10.48	10.26	-2.1
30-39	13.66	14.07	2.9
40-49	12.54	14.95	16.1
50-59	11.84	14.25	16.9
60+	10.40	11.50	9.6
All	11.68	13.01	10.2
<i>Notes:</i> Data for 16-17 year olds are not shown as they include some people not on adult rates.			
<i>Source:</i> ONS, ASHE 2010, Table 6.6a.			

Appendix B: Gender pay gaps in Europe

Gender pay gap data in gross hourly earnings are now collected on the same basis by Eurostat. As a comparison of these data with those in Table 3 shows, the Eurostat figures for the UK differ from those shown in ASHE for several reasons and are not therefore comparable; the Eurostat data exclude public administration and defence, as well as agriculture and some other sectors, but include overtime and other additional payments. Of particular importance for the UK, but by no means for all other countries, is the fact that the gender pay gap figures combine full-time and part-time employees.

As shown in Table B1, the size of the gender pay gap varies considerably between European countries. In 2008, the overall gender pay gap for the EU-27 countries was 17.5 per cent, very similar to the figure in 2007 (17.6 per cent). While in some smaller EU countries (such as Malta), the gender pay gap fluctuates considerably, in Italy, Malta, Poland, Portugal and Slovenia, the gap was less than 10 per cent in each year between 2006 and 2008. In contrast, it was 20.0 per cent or more in each year in the Czech Republic, Germany, Greece, Cyprus, Austria, Slovakia, Finland and the UK. This was also the case in both 2006 and 2007 for Estonia, which had the widest gender pay gap of EU-27 countries in both years, but as of February 2011 has yet to report 2008 results.

Among 29 European countries (the EU-27, together with Norway and Switzerland which are not in the EU), the UK had the 26th widest gap in 2006, the 21st in 2007 and the 21st (out of 27) widest gap in 2008. Among the 23 countries that have thus far reported data for 2009, it had the equal 17th widest gap. Italy had the narrowest gender pay gap in each year and it has been suggested by the European Commission that this may reflect the small proportion of low-skilled or unskilled women in the Italian workforce.³⁴ One other feature worth noting, comparing 2006 with 2008, is that in more than half the countries shown here, the gender pay gap was higher in the latter year than in the former year. Only in Belgium, Spain and Slovakia was there a consistent falling trend over the three years, 2006 to 2008 (and this trend was halted in the latter two countries in 2009).³⁵

Table B1: Gender pay gaps in European countries, 2006-09				
	Per cent:			
	2006	2007	2008	2009
EU (27)	17.7	17.6	17.5p	n/a
EU (16)	17.3	17.6	17.3p	n/a
Belgium	9.5	9.1	9.0	n/a
Bulgaria	12.4	12.4	13.6	15.3
Czech Republic	23.4	23.6	26.2	25.9
Denmark	17.6	17.7	17.1	16.8
Germany	22.7	23.0	23.2	23.2
Estonia	29.8	30.9	n/a	n/a
Ireland	17.2	17.1	n/a	n/a
Greece	20.7	21.5	22.0	n/a
Spain	17.9	17.1	16.1	16.1p
France	15.4	16.9	17.9	n/a
Italy	4.4	5.1	4.9	5.5
Cyprus	21.8	23.1	21.6	21.0
Latvia	15.1	15.4	13.4	14.9
Lithuania	17.1	20.0	21.6	15.3
Luxembourg	10.7	12.5	12.4	12.5
Hungary	14.4	16.3	17.5	17.1
Malta	5.2	7.6	8.6	6.9
Netherlands	23.6	23.6	19.6	19.2
Austria	25.5	25.5	25.5	25.4
Poland	7.5	7.5	9.8	n/a
Portugal	8.4	8.3	9.2	10.0
Romania	7.8	12.7	9.0	8.1
Slovenia	8.0	8.3	8.5	3.2
Slovakia	25.8	23.6	20.9	21.9
Finland	21.3	20.0	20.0	20.4
Sweden	16.5	17.9	17.1	16.0
UK	24.3	21.1	21.4	20.4
<i>Non-EU countries</i>				
Norway	16.0	15.7	17.2	16.7
Switzerland	18.6	18.7	18.4	18.4
<i>Notes:</i>	Data are for the unadjusted gender pay gap. p = provisional data			
<i>Source:</i>	Eurostat. Available at: http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsiem040			

Sources

The main source of data on the earnings of women and men in the UK is the Annual Survey of Hours and Earnings (ASHE), which is carried out by the Office for National Statistics (ONS). ASHE replaced the New Earnings Survey (in use since 1970) in 2004, although ONS has recalculated earnings data back to 1997. The most recent available dataset is for 2009. The second most important source of earnings is the Labour Force Survey (LFS), which is also conducted by ONS (on a quarterly basis); the LFS forms part of the Annual Population Survey (APS). A third major national source is the British Household Panel Survey (BHPS), which was carried out by the Institute for Social and Economic Research at the University of Essex between 1991 and 2009; it was then succeeded by Understanding Society, which both replaces and incorporates it.

There are several important differences between the ASHE and the LFS/APS surveys as sources of earnings data. The ASHE is a survey of employers and as such is a particularly rich source of data on earnings by occupation, industry, UK nation and English region. The gender pay gap is also usually calculated using the ASHE. The LFS/APS allows analysis of pay gaps by other equality strands, including disability, ethnicity, religion or belief and sexual orientation, as well as by presence of children and marital status, which cannot be calculated from the ASHE. For an analysis of the differences between ASHE and LFS earnings data, see C. Ormerod and F. Ritchie, 'Linking ASHE and LFS: Can the main earnings sources be reconciled?', *Economic & Labour Market Review*, 1, 3 (2007): 24-31. Like the LFS, the BHPS contained a number of variables relating to personal or family characteristics that are not available in the ASHE (although the overall sample was much smaller than that of the LFS); unlike the LFS, it was also a longitudinal/panel dataset, with the same individuals appearing in the sample over a number of years.

The main source of earnings data for women and men (but not for other equality strands) across European countries is the Structure of Earnings Survey carried out by Eurostat since 2006. The most recent analysis of the gender pay gap in European countries is by S. Casali and V. Alvarez Gonzalez, '17% of full-time employees in the EU are low-wage employees', *Statistics in Focus*, 3/2010.

There have been a large number of analyses of the gender pay gap over the years, including a number of studies commissioned by both the Equal Opportunities Commission and the Equality and Human Rights Commission. A reading list prepared by the Equality and Human Rights Commission's Librarian is available on request from the Commission's Research Team. Key sources include:

Anderson, T., Forth, J., Metcalf, H. and Kirby, S. (2001) *The Gender Pay Gap*. London: Women and Equality Unit, The Cabinet Office.

Grimshaw, D. and Rubery, J. (2001) *The Gender Pay Gap: A Research Review*. EOC Research Discussion Series. Manchester: Equal Opportunities Commission.

Grimshaw, D. and Rubery, J. (2007) *Undervaluing Women's Work*. EOC Working Paper Series no. 53. Manchester: Equal Opportunities Commission.

Joshi, H., Makepeace, G. and Dolton, P. (2007) 'More or less unequal? Evidence on the pay of men and women from the British Birth Cohort Studies', *Gender, Work and Organization*, 14, 1: 37-55.

Longhi, S. and Platt, S (2008) *Pay Gaps Across Equalities Areas*. EHRC Research Report no. 9. Manchester: Equality and Human Rights Commission.

Manning, A. and Petrongolo, B. (2005) *The Part-Time Pay Penalty*. London: Women and Equality Unit.

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Olsen, W. and Walby, S. (2004) *Modelling Gender Pay Gaps*. EOC Working Paper Series no. 17. Manchester: Equal Opportunities Commission.

Olsen, W., Gash, V., Vandecasteele, L., Walthery, P. and Heuvelman, H. (2010) *The Gender Pay Gap In the UK 1995-2007: Part 1 - Research Report*. London: Government Equalities Office. Available at:
http://webarchive.nationalarchives.gov.uk/20100505211508/http://www.equalities.gov.uk/publications_and_research/research/the_gender_pay_gap_in_the_uk.aspx

Rubery, J., Grimshaw, D. and Figueiredo, H. (2003) *The Gender Pay Gap and Gender Mainstreaming Pay Policy in EU Member States*. European Expert Group on Gender and Employment Report to the Equal Opportunities Unit, DG Employment, European Commission.

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Endnotes

- ¹ The three datasets are briefly discussed in the sources.
- ² All hourly earnings exclude overtime (unless stated).
- ³ Mean paid hours overtime per week were 1.6 for male full-timers and 0.6 for female full-timers; mean weekly overtime payments for full-timers were 24.2 (men) and 7.3 (women). Data are from Annual Survey for Hours and Earnings, Tables 1.4a, 1.9a and 1.11a.
- ⁴ All weekly and annual earnings include overtime and other additional payments.
- ⁵ All earnings estimates in this briefing shown from ASHE have a coefficient of variation (the ratio of the standard error of an estimate to the estimate) of less than or equal to 5 per cent. This indicates the quality of an estimate, with lower percentages indicating higher quality. Coefficients of variation are not published for the pay gaps. However, the Equality and Human Rights Commission has estimated the approximate statistical significance of a few key figures and this information is included in the text. The level of statistical significance in each case is approximately 95 per cent and the null hypothesis is a zero pay gap.
- ⁶ For the ONS view on what data should be shown on the gender pay gap, see S. Hicks and J. Thomas, 'Presentation of the gender pay gap', *ONS Position Paper*, November 2009. Available at: <http://www.statistics.gov.uk/articles/nojournal/PresentationoftheGenderPayGap.pdf>
- ⁷ An initial ONS analysis of the 2010 ASHE data can be found at: '2010 Annual Survey for Hours and Earnings', *ONS Statistics Bulletin*. Available at: <http://www.statistics.gov.uk/pdfdir/ashe1210.pdf>. See also S. Welfare, 'Gender pay gap: facts and figures', *IRS Employment Review*, 4 February 2011.
- ⁸ Unlike ASHE, NES did not cover Northern Ireland, so UK-wide data are not available.
- ⁹ Two of the improvements to the ASHE methodology, compared with NES, were that estimates are now made for missing individual items (basic pay/hours, overtime pay/hours and annual hours), and ASHE data, unlike NES data, are weighted. Both imputation and weighting resulted in the earnings of full-time male employees increasing more than those of their female counterparts. For a discussion, see C. Duffin, 'An analysis of historical ASHE data 1998 to 2003', *Labour Market Trends*, December 2005, pp. 493-504. For a fuller description of the ASHE and the differences between it and the NES, see also D. Bird, 'Methodology for the 2004 Annual Survey of Hours and Earnings', *Labour Market Trends*, November 2004, pp. 457-64.

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- ¹⁰ P. McDowell, *The Gender pay gap in context: Cause, consequences and international perspectives*. Equality Directorate Research Branch, Office of the First Minister and Deputy First Minister, Northern Ireland. Available at: http://www.ofmdfmni.gov.uk/index/equality/equalityresearch/research-publications/esn-pubs/the_gender_pay_gap_in_context__causes_consequences_and_international_perspectives-3.pdf
- ¹¹ The difference between GB and UK mean earnings of female part-time employees has never been more than 3 pence. Mean earnings of female part-time employees in Northern Ireland are subject to considerable annual fluctuations; this is largely due to the fact that there are fewer female part-time employees in Northern Ireland than elsewhere (so the corresponding sample numbers are smaller).
- ¹² On four previous occasions, median earnings of women working full-time had increased more than men's: 1999, 2003, 2003 and 2007. But previously the largest female 'advantage' had only been 16 pence (in 2005).
- ¹³ These data are calculated by the Equality and Human Rights Commission from Table 14.6a.
- ¹⁴ When median earnings are analysed, the gap in favour of women in professional occupations is even more pronounced.
- ¹⁵ Managers and senior officials made up 22 per cent of all male full-time employees in ASHE, but only 4 per cent of all female part-time employees.
- ¹⁶ The gap was narrower in administrative and secretarial occupations than in professional occupations in 2008.
- ¹⁷ These data are not shown in the report, but are available on request from the author.
- ¹⁸ In all three years, the full-time gender pay gap was widest among health professionals.
- ¹⁹ Almost certainly, there were a number of other managerial and professional occupations where average hourly earnings of full-time employees were at least £25 per hour, but where there were too few people in the ASHE sample for the data to be shown here.
- ²⁰ These data are not shown in the report, but are available on request from the author.
- ²¹ Weekly earnings (not shown) are from Table 13.6a.
- ²² It should be recalled that the change in methodology in 2007 served to increase the gender pay gap.

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- ²³ These data are not shown in the report, but are available on request from the author.
- ²⁴ Weekly earnings (not shown) are from Table 4.6a.
- ²⁵ This finding appears to be related to the different male and female distribution of employment within this sector; a higher proportion of male full-timers in the industry are more likely than their female counterparts to work in the lower paid parts of the sector, land transport and transport via pipelines (Standard Industrial Classification (SIC) 49) and postal and courier activities (SIC 53).
- ²⁶ Weekly earnings data are from Table 7.1. While mean hourly earnings of women working full-time were higher in Wales than in Northern Ireland, mean weekly earnings of women working full-time were slightly higher in Northern Ireland.
- ²⁷ The trend data are not shown in the report, but are available on request from the author. The East had the second widest full-time gender pay gap between 2003 and 2005.
- ²⁸ These data are not shown in the report, but are available on request from the author.
- ²⁹ In one region, the North East, the data on mean hourly earnings of male part-time employees were not sufficiently robust to be shown.
- ³⁰ The gender pay gap for those aged 22-29 is not statistically significant.
- ³¹ One difference was that until 2004, data were shown for all aged 50+, rather than separately for those aged 50-59 and 60+. These data are not shown in the report, but are available on request from the author.
- ³² These data are not shown in the report, but are available on request from the author.
- ³³ In 2010, the overall mean earnings for all employees (that is, men and women combined) was £14.65 per hour.
- ³⁴ See 'Gender pay gap: the situation in the EU', European Commission Employment, Social Affairs and Inclusion Directorate. Available at:
<http://ec.europa.eu/social/main.jsp?catId=685&langId=en>. Malta and Poland were given as other examples of EU countries with small gender pay gaps for the same reason.
- ³⁵ Data for Spain for 2009 are still provisional and Belgian data have yet to be reported.

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